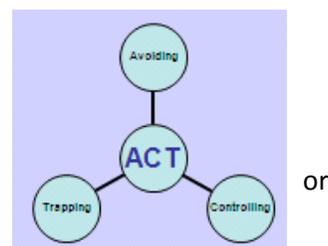


NRCS Core and Supporting Practices Approved for Support of the NWQI

Conservation Activity Plans	Code
Comprehensive Nutrient Management Plan	102
Nutrient Management Plan	104
Irrigation Water Management Plan	118

Conservation Practices and “ACT”:

The initiative emphasizes a “systems approach” to address priority natural resource concerns. A cornerstone of this approach is to encourage producers to implement a system of practices that has been determined to address specific high-priority resource concerns in selected watersheds as well as incorporate selection of practices that address the concept for Avoiding, Controlling, or Trapping pollutants, “ACT.” The concept of ACT is defined as:



- **A (Avoiding):** Avoidance helps manage nutrients and sediment source control from agricultural lands, including animal production facilities. Practices such as Nutrient Management (590), Cover Crop (340), and Conservation Crop Rotation (328) help producers avoid pollution by reducing the amount of nutrients available in runoff or leaching into priority water bodies and watersheds. Practices such as cover crops and crop rotation help take up nutrients to avoid potential runoff and pollution. Crop rotations that include differing crops, such as legumes, can limit amounts of commercial nutrients applied.
- **C (Controlling):** Land treatment in fields or facilities that prevents the loss of pollutants includes practices such as conservation tillage practices and residue management, which improve infiltration, reduce runoff, and control erosion. Specific practices such as No-till/Strip/Till/Direct Seed (329) and Mulch Tillage (345) are foundation practices to recommend to producers in priority watersheds. Practices such as Cover Crop (340) will also do double duty by helping with Avoidance as well as Controlling. Other facilitating practices, such as Terraces (600) or Stripcropping (585), help control erosion and may manage runoff to reduce nutrients loading.
- **T (Trapping):** The last line of defense against potential pollutants at edge of field, or in facilities to trap or treat. Practices such as Filter Strips (393) and the suite of wetland practices to enhance and/or restore wetlands (659 and 657) all serve to trap and uptake nutrients before entering water bodies.



Planning considerations to support “Avoiding”:

- Apply fertilizer (chemical, manure, etc.) at the appropriate rate and time, with the appropriate placement and method. For example:
 - Rate: Use adaptive management techniques over time to track residual soil nutrient levels with soil testing.
 - Time: Apply fertilizer in the spring instead of fall, unless there is a winter cover crop in place.
 - Placement: Apply fertilizer to the root zone for enhanced uptake by plants.
 - Method: Properly calibrate fertilizer application equipment to ensure the correct amount of fertilizer is applied.
- Develop a nutrient management plan to identify nitrogen and phosphorus management actions that will reduce losses of nitrogen and phosphorus.
- When calculating optimal rate of application, make sure to credit other sources that contribute nitrogen and phosphorus to the soil, such as previous legume crops, irrigation water, and organic matter.
- Properly store fertilizer (e.g., in a storage building with impermeable floors).
- Compost manure to reduce the overall volume for disposal.

Planning considerations to support “Controlling”:

- Plant cover crops to absorb and store nitrogen and phosphorus in the fall and winter and to prevent erosion.
- Use no tillage, ridge-tillage, or other reduced-tillage practices in place of conventional tillage.
- Use irrigation systems (e.g., sprinklers, low-energy precision applications, surges, and drips) to apply water uniformly and with greater efficiency; this reduces water loss and transport of nitrogen and phosphorus out of the field.
- Consider rotating crops to minimize use of fertilizer in some cases.
- Use stream crossings, fencing, and watering facilities to keep pastured animals out of water bodies.
- Divert roof runoff and other uncontaminated stormwater away from animal confinement and manure storage areas.

Planning considerations to support “Trapping”:

- Enhance or restore wetlands and riparian forest buffers to trap nitrogen and phosphorus before they reach water bodies.
- Install a pump to reuse drainage water stored in a holding pond (along with the nitrogen and phosphorus in the water) during dry periods.
- Plant a vegetative buffer along drainage ditches to capture more nitrogen, phosphorus, and sediment from runoff before entering the waterway.
- Ensure that all runoff from animal confinement areas and areas used to store manure, feed, and bedding is captured and retained.
- Ensure waste storage facilities, such as stacking pads, lagoons, and holding ponds are designed to store the amount of waste produced at the operation, as well as account for large storms that could result in overflow.